United States Department of

Soil Conservation Service

Americus Plant Materials Center

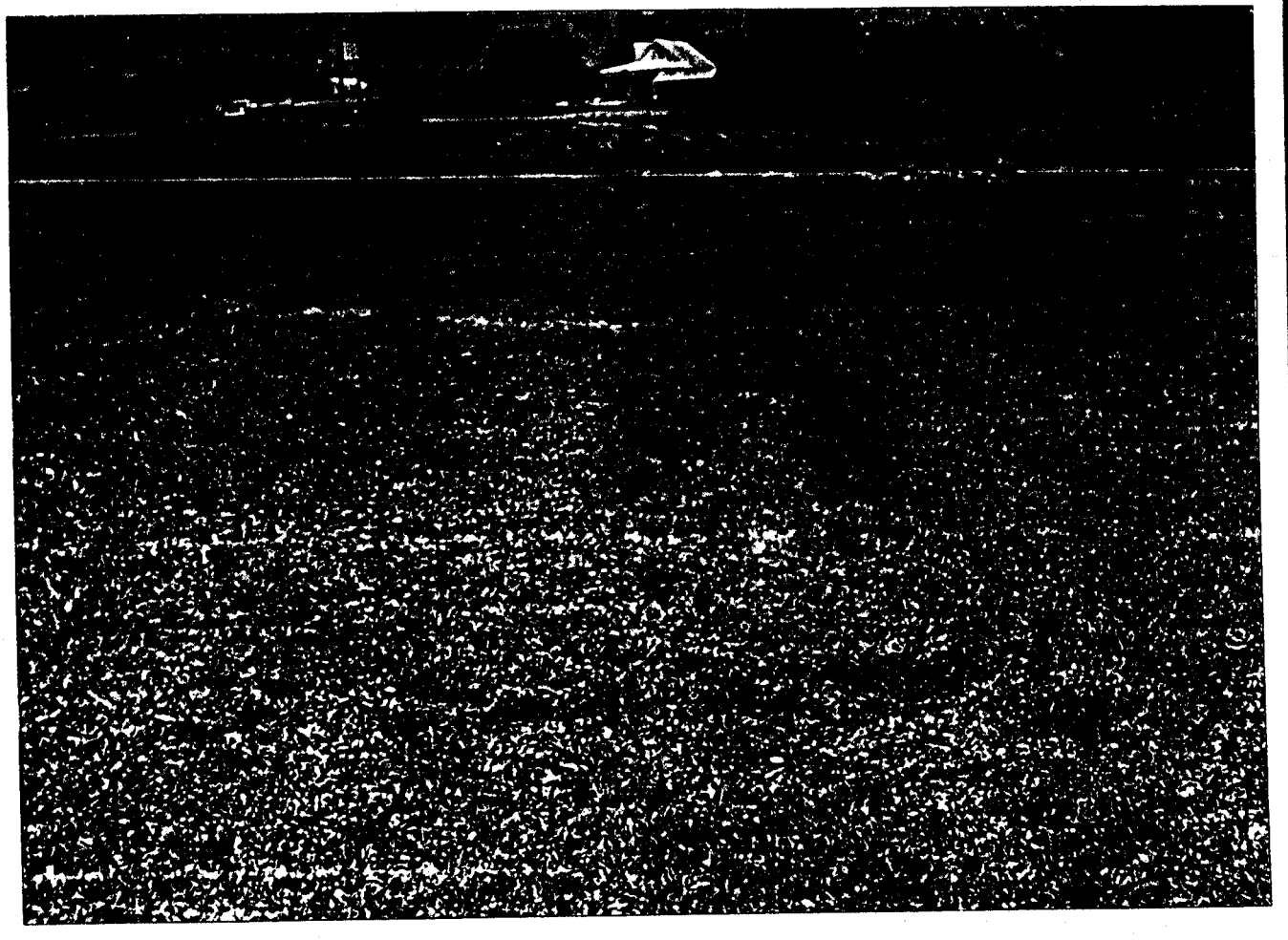
Americus, Georgia

Release of

'DONCORAE' Brunswickgrass

Paspalum nicorae

A plant for establishing grass waterways, buffer strips, filter strips, field borders, water disposal areas and similar critical areas in the southern coastal plain region.



A release of the U.S. Department of Agriculture, Soil Conservation Service.

'DONCORAE' BRUNSWICKGRASS

PUBLIC RELEASE DOCUMENTATION

Paspalum nicorae (Parodi)

THIS PLANT CAN BE USED FOR GRASS WATERWAY ESTABLISHMENT, BUFFER STRIPS, FILTER STRIPS, AND OTHER CRITICAL AREAS IN THE COASTAL PLAIN REGION.

'DONCORAE' BRUNSWICKGRASS

AMERICUS PLANT MATERIALS CENTER

AMERICUS, GEORGIA

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

NOTICE OF RELEASE FOR 'DONCORAE' BRUNSWICKGRASS

The United States Department of Agriculture, Soil Conservation Service, announces the release of 'DONCORAE' Brunswickgrass, Paspalum nicorae (Parodi)

DONCORAE Brunswickgrass was developed at the Soil Conservation Service Plant Materials Center, Americus, Georgia.

Brunswickgrass is a tropical and subtropical deciduous sod forming warm season perennial plant that is similar to bahiagrass, Paspalum notatum, with one of the major differences being that brunswickgrass spreads by rhizomes while the bahiagrass spreads by stolons. It produces a dense matt of rhizomes that are located 1 to 5 inches below the soil surface. Under clipping 1,000 to 11,000 shoots per square foot have been obtained (Beaty et. al). Field stands have averaged 200 to 250 shoots per square foot when not mowed. It is highly shade tolerant and seedling growth is rapid. At maturity, it averages about 30 inches tall. Sods have a bluish cast. Doncorae is winter hardy along the coastal plain major land resource areas, 133A, 137 and 153A. In SCS field plantings DONCORAE has survived winters at Sand Mountain and Huntsville, Alabama. It is more winter hardy than other brunswickgrass accessions.

The work that SCS has done with Brunswickgrass Paspalum nicorae dates back to 1945 when Paul Tabor, SCS plant materials specialist dug springs of an escaped grass near Brunswick, Georgia. It exhibited the ability to produce a sod from widely creeping rhizomes. When it was brought to the plant materials center it was given the common name of Brunswickgrass. Through a series of plot studies it proved to be an excellent grass with strong potential as a conservation plant. In 1962 the first Brunswickgrass assembly was made to compare several accessions at the plant materials center. At the time accession PI-202044 (AM-469) proved to be the

best accession. It was named 'Amcorae' Brunswickgrass and establishment of Field Evaluation Plantings were begun to check it for possible use as a sod produces in waterways and other critical areas. Most of the earlier studies were focused on its potential as a forage grass. Earlier reports indicated even higher yields and more palatability than Pensacola. (Refer to Reports of earlier studies in the supporting data to obtain more information).

In 1984 the plant materials center obtained new Brunswickgrass accessions from the plant introduction station in Griffin, Georgia. Accession No. PI-310131 showed superior characteristics when compared to PI-202044 and other accessions tested. The four brunswickgrass accessions, PI's - 310131, 202044 (Amcorae), 490363 and 490364 were selected for advanced testing. The evaluation was conducted to determine the accessions seed production, seed germination, vigor, growth, and fertilizer responses.

After summarizing the data at the completion of the project, accession PI-310131 had the best germination, vigor, seed production, and growth.

There was a trend toward the 50-50-50 fertilizer analysis because it gave the best optimal seed production, overall growth, and vigor.

From 1984-92, DONCORAE Brunswickgrass was evaluated in SCS Field Plantings in Alabama, Georgia and Florida for the following conservation uses.

* grass waterways
* buffer strips
* filter strips
* kaolin mine spoil reclamation
* coastal area stabilization
* forestland erosion control (roads, logging trails, (CAT)
* gully stabilization

Other potential uses that have not been evaluated are:

* erosion control on construction sites
* golf course fairways
* turf grass

From 1985-92, DONCORAE Brunswickgrass was evaluated for potential use in grass waterways at 14 locations and 7 MLRA's (128, 129, 133A, 136, 137, 152 and 153) in three states, Alabama, Georgia, and Florida. It has been compared to Pensacola bahiagrass and Tifton 9 bahiagrass in grass waterway field plantings. OONCORAE Brunswickgrass produced a quicker dense stand with its rapid seedling growth in grass waterways than Pensacola and Tifton 9 bahiagrass. Stands were easily secured from seed in waterways. Excellent stands have been obtained in grass waterways in Baldwin and Mobile counties in Alabama.

In buffer and filter strips DONCORAE Brunswickgrass established a quicker stand than other accessions tested.

Persistent stands of DONCORAE have been obtained in Attapulgus, Georgia on kaolin mine spoil reclamation. It is the number one choice for that site.

It has been used to establish critical areas on the very back dune sites on the coastal areas at Jekyll Island, Georgia.

For forestland erosion control on roads, logging trails and other critical areas, DONCORAE was compared to Pensacola bahiagrass, Alamo switchgrass, Atlantic coastal panicgrass, marshhay cordgrass and Ambro virgata lespedeza in Choctaw and Escambia Counties in Alabama. The germination, rate of growth, spread and percent cover ratings were the highest for DONCORAE. The percent ground cover at the Alabama locations were:

SPECIES	GROUND COVER %	
	1991	1992
OONCORAE	94	97.5
Alamo Switchgrass	67	80
Pensacola bahiagrass	30	55

Scott Paper Company in Alabama became very impressed with DONCORAE'S ability to establish quickly and control erosion on forestland critical areas. They have established a seed production field in Baldwin County Alabama as a source of seed to plant on critical areas on their forested areas.

In Crestview, Florida, DONCORAE was compared to Argentina bahiagrass in two waterways. DONCORAE exhibited faster germination, seedling growth, and development.

James B Newman

Director, Ecological Science Division
United States Department of Agriculture
Soil Conservation Service
Washington, D.C.

11-29-93
Date

Earl V Ford

State Conservationist
United States Department of Agriculture
Soil Conservation Service
Auburn, Alabama

4-1-93
Date

Herbert R Read

State Conservationist
United States Department of Agriculture
Soil Conservation Service
Athens, Georgia

4/1/93
Date

Dexter, Acting

State Conservationist
United States Department of Agriculture
Soil Conservation Service
Columbia, South Carolina

4/1/93
Date